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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,602	12/22/2000	Kent Gilson	404332000200	8247

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EXAMINER

SANTOS, PATRICK J D

ART UNIT PAPER NUMBER

2161

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,602

Applicant(s)

GILSON, KENT

Examiner

Patrick J Santos

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 2-70 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it does not "enable the reader thereof, regardless of his or her degree of familiarity with patent documents, to determine quickly from a cursory inspection of the nature and gist of the technical disclosure and should include that which is new in the art to which the invention pertains." Specifically, the abstract in total states, "A behavioral synthesis process is provided that transforms a generalized behavioral design into a detailed interconnection of design objects to implement the behavior." However, from this abstract, a reader could not determine quickly several key features about the invention. Some examples include: (1) that this was an invention directed to computer behavior, or (2) that the "generalized behavioral design" were graphical user interface objects to be manipulated in a design program. The abstract should contain not only these two items, but also any particularly novel features that the reader should be aware about to determine the scope of the invention. Correction is required. See MPEP § 608.01(b).

Election/Restrictions

2. Because of the expansion of a single claim into 69 new claims, Examiner is required to issue this restriction paper.

Art Unit: 2161

37 CFR 1.142 states:

(a) If two or more independent and distinct inventions are claimed in a single application, the examiner in an Office action will require the applicant in the reply to that action to elect an invention to which the claims will be restricted, this official action being called a requirement for restriction (also known as a requirement for division). Such requirement will normally be made before any action on the merits; however, it may be made at any time before final action.

Examiner notes the cancellation of sole claim 1 from the original application.

Examiner further notes the replacement of sole claim 1 with new claims 2-70 (2-27 from the Jun. 24, 2004 amendment and claims 28-70 from the Dec. 23, 2004 amendment).

Examiner moreover notes comments from the Jun. 24, 2004 amendment:

When the original patent application was filed, applicant did not have enough time to devote to preparation of a detailed set of claims. Instead applicant put his efforts into developing as complete a disclosure as possible under the circumstances. Applicant is a co-founder of a small company, and at the time this application was filed, applicant was under great stress to continue product development and market development for his new behavioral synthesis system and related software and hardware products. Applicant believes that he has developed a new paradigm for behavioral synthesis, and that he has developed **numerous inventions** in the process. In view of the limited time that the applicant had to devote to the preparation of his patent application, applicant put his efforts into developing a robust disclosure of his new behavioral synthesis system so as to provide plenty of support for the **numerous inventions** that he believes to be embodied in the system (emphasis added).

(Jun. 24, 2004 Amendment, p. 17, ln. 18 to p. 18, ln. 4).

Given the unusual expansion on the number and the scope of claims, Examiner makes the following six-way restriction.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 2-28, drawn to visual modeling of software (including identifying objects to be processed, symbol substitution, definition of dataset types, and resolving to design), classified in class 717, subclass 104.
- II. Claims 29-54, drawn to code generation including (transforming a high level representation to a low level representation), classified in class 717, subclass 106.
- III. Claims 55-59, drawn to object oriented dynamic linking, late binding (including changing the locus of synthesis), classified in class 719, subclass 332.
- IV. Claims 60-65, drawn to object oriented messaging (including resolving variant data), classified in class 719, subclass 315.
- V. Claim 67, drawn to optimization (including removing an exposurer and a collector), classified in class 717, subclass 151.
- VI. Claims 68-70, drawn to data transfer converting a data set, classified in class 719, subclass 329.

The inventions are distinct, each from the other for the following reason: Inventions I-VI taken pairwise are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)).

Regarding Invention I and Invention II a visual designer of software need not be integrated with a code generator. Similarly, design tools are separate tools than

generation tools and are often mixed and matched across vendors, thus further underscoring the independence of the two types of tools.

Regarding Inventions III through VI, they are techniques that need not be applied to either Invention I or II. There are many visual modelers and generation tools that do not rely on changing the locus of synthesis, resolving variant data, removing exposers and collectors, and data transfer converting a data set. On the other hand, these techniques may be applied even to non-graphical tools (e.g. text or script representations of design or implementation).

Because these inventions are distinct for the reasons given above, and the search required for Groups I through VI are mutually exclusive, restriction for examination purposed as indicated is proper.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J.D. Santos whose telephone number is 571-272-4028. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2161

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos
April 16, 2005


FRANTZ COBY
PRIMARY EXAMINER